OUANTITY

DESCRIPTION

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

CATEGORY

CODE NO.

960022

960023

960027

973023

SPEC. SECTION

806

806

806

## EQUIPMENT LIST "B"

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FHWA	STATE	FED⊾ AID	SHEET	TOTAL SHEETS
REGION NO.	31810	PROJ. NO.	NO.	
3	MD	SEE TITLE SHEET	·	

B. EQUIPMENT	ΤØ	BE	FURNISHED	AND/OR	INSTALLED	ΒY	THE	CONTRACTOR

4 5400		MAST ARM MOUNT	SPEC. SECTION	ITEM No.	QUANTITY	DESCRIPTION
4 EACH	12 IN., I-WAY, 3-SECTION (RA.YA.GA.)		104	120500	L.S.	MAINTENANCE OF TRAFFIC
		AL HEAD MAST ARM MOUNT		203030	I C.Y.	TEST PIT EXCAVATION
D EACH	12 IN., I-WAY, 4-SECTION (R.Y.G.GA.) SIGNAL HEAD MAST ARM MOUNT		205			
220 S.F.			104	500000	698 L.F.	FURNISH AND INSTALL 12 IN. WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS (CROSSWALK)
220 3.1.	SHEET ALUMINU		104	500000	230 L.F.	FURNISH AND INSTALL 24 IN. WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKING TAPES (STOP LI
	- 7 EACH	R3-5 SIGN (30 IN. x 36 IN.) - "LANE USE CONTROL - LEFT ONLY" MAST ARM MOUNT	801	801004	10 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
	- 4 EACH	D3-2 SIGN (VARIABLE × 32 IN.) - (ADVANCE STREET NAME PANEL) MAST ARM MOUNT	804	837001	2 EACH	FURNISH AND INSTALL GROUND ROD - 3/4 IN. DIÂMETER × 10 FT. LENGTH
			805	800000	10 L.E.	FURNISH AND INSTALL 3* SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
	- 2 EACH	R6-I(R) (36 IN. × I2 IN.) *ONE WAY* ONE PIECE FIELD ASSEMBLY ON A	805	805150	60 L.F.	FURNISH AND INSTALL 3' SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
		BLACK BACKGROUND - (30 IN. × 51 IN.) POLE MOUNT:	805	805160	122 L.F.	FURNISH AND INSTALL I IN. LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
		M3-I SIGN (24 IN. x I2 IN.) "NORTH" (FOR INDEPENDENT USE)	810	800000	9 EÀCH	FURNISH AND INSTALL MICRO-LOOP PROBE SET 1000 FT. LEAD-IN
		MI-5 SIGN (30 IN. x 24 IN.) "MARYLAND 235" (FOR INDEPENDENT USE)	810	800000	2 EACH	FURNISH AND INSTALL MICRO-LOOP PROBE SET 500 FT. LEAD-IN
		M6-1 SIGN (21 IN. x 15 IN.) *DIRECTIONAL ARROW-HORIZONTAL*	810	802501	600 L.F.	FURNISH AND INSTALL STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
	- IEACH	R6-I(R) (36 IN. x 12 IN.) "ONE WAY"	810	861104	2715 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR ALUMINUM SHIELDED
		ONE PIECE FIELD ASSEMBLY ON A BLACK BACKGROUND - (48 IN, × 75 IN.) POLE MOUNT:	810	861105	538 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO.14 AWG)
		M3-1 SIGN (30 IN. x 15 IN.) "NORTH" (FOR INDEPENDENT USE)	810	861106	1360 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 3 CONDUCTOR (NO.14 AWG)
		MI-5 SIGN (48 IN. x 36 IN.) "MARYLAND 235" (FOR INDEPENDENT USE)	810	861107	135 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO.14 AWG)
		M6-1 SIGN (30 IN. x 24 IN.) "DIRECTIONAL ARROW-HORIZONTAL"	810	861108	2345 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO.14 AWG)
	- 2 EACH	R6-I(R) (36 IN. × 12 IN.) "ONE WAY"	810	861116	530 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO.12 AWG)
		ONE PIECE FIELD ASSEMBLY ON A BLACK BACKGROUND - (30 IN. x 51 IN.) POLE MOUNT:	810	862101	4830 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO.14 AWG)
		M3-3 SIGN (24 IN. x I2 IN.) "SOUTH" (FOR INDEPENDENT USE)	810	831010	2 EACH	FURNISH AND INSTALL 250 WATT H.P.S. LAMP AND LUMINAIRE
		MI-5 SIGN (30 IN. × 24 IN.) *MARYLAND 235*	811	811001	2 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
		(FOR INDEPENDENT USE)	814	860220	14 EACH	INSTALL SIGNAL HEADS - MAST ARM MOUNT
		M6-1 SIGN (21 IN. x 15 IN.) "DIRECTIONAL ARROW-HORIZONTAL"	815	862102	1770 L.F.	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
			815	800000	2 EACH	FURNISH AND INSTALL 27 FT. STEEL POLE WITH TWIN 50 AND 60 FT. MAST ARMS ARM ON SIGNAL STRUCTURE
	- IEACH	R6-I(R) (36 IN. × 12 IN.) "ONE WAY"	818	866103	2 EACH	FURNISH AND INSTALL IS FT. LIGHTING
		ONE PIECE FIELD ASSEMBLY ON A BLACK BACKGROUND - (48 IN. x 75 IN.) POLE MOUNT:	***************************************	800000	600 L.F.	FURNISH AND INSTALL ELECTRICAL OPTICOM CABLE - 4 CONDUCTOR (NO.20 AWG)
		M3-3 SIGN (30 IN. x 15 IN.) "SOUTH"	818	813015	220 S.F.	INSTALL OVERHEAD SIGN
		(FOR INDEPENDENT USE)	810	800000	525 L.F.	FURNSH AND INSTALL COAXIAL CABLE (FOR AUTOSCOPE)
		MI-5 SIGN (48 IN. x 36 IN.) "MARYLAND 235"		873001	L.S.	REMOVE AND SALVAGE EXISTING EQUIPMENT
		(FOR INDEPENDENT USE)	<u></u>	860265	6 EACH	RELOCATE EXISTING SIGNAL HEAD
		M6-I SIGN (30 IN. x 24 IN.) *DIRECTIONAL ARROW- HORIZONTAL*		800000	3 EACH	RELOCATE EXISTING SIGN ON SPAN WIRE OR MAST ARM
				800000	2 EACH	RELOCATE AND INSTALL OPTICOM DETECTOR
				800000	2 EACH	INSTALL AUTOSCOPE
				000008	6 EACH	UNCOVER SIGNAL HEADS

## CONSTRUCTION DETAILS

- A. INSTALL 27' STEEL POLE WITH TWIN 50' AND 60' MAST ARMS, 15' LIGHTING ARM AND LUMINAIRE, TRAFFIC SIGNAL HEADS, SIGNS, RELOCATE OPTICOM DETECTOR, AND AUTOSCOPE AS NOTED (NOTE: 1 3" PVC 90 DEGREE ANGLE CONDUIT BENDS).
- B. INSTALL 6'  $\times$  30' LOOP DETECTOR, ENCASED IN  $\frac{1}{4}$ " FLEXIBLE TUBING (3,6,3 TURNS) QUADRUPLE TYPE.
- C. INSTALL MICRO-LOOP PROBE SET.
- D. INSTALL HANDHOLE.

(STOP LINE)

E. INSTALL I\* LIQUID - TIGHT FLEXIBLE NON-METALLIC ELECTRICAL CONDUIT (DETECTOR WIRE SLEEVE).

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- F. INSTALL 3" SCHEDULE 80 ELECTRICAL CONDUIT TRENCHED.
- G. INSTALL 3" SCHEDULE 80 ELECTRICAL CONDUIT SLOTTED.
- H. WIRE PEDESTRIAN POLE AND UNCOVER SIGNAL HEADS AS SHOWN.
- I. REMOVE AND SALVAGE EXISTING SIGNAL HEADS, WOOD POLE, BACK GUYS, AND SIGNAL CABLE, SPAN WIRE AS DIRECTED BY THE ENGINEER.
- J. REMOVE AND SALVAGE EXISTING WOOD POLE, BACK GUY, SIGNAL CABLE, AND SPAN WIRE AS DIRECTED BY THE ENGINEER.
- K. REMOVE EXISTING HANDHOLE.
- L. INSTALL 6' x 6' LOOP DETECTOR. (4 TURNS) ENCASED IN1/4" FLEXIBLE TUBING
- M. USE EXISTING HANDHOLE.
- N. USE EXISTING CONDUIT.
- O. CAP AND ABANDON EXISTING CONDUIT.
- P. REMOVE SIGNAL HEAD, SIGNS, AND UNUSED CABLE AS THE NEW SIGNALS ARE CUT OVER AND OR AS DIRECTED BY THE ENGINEER.
- O. INSTALL 24' WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS (STOP LINE)
- R. INSTALL 12\* WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS (CROSSWALK)
- S. REWIRE CONTROLLER AND REMOVE ALL UNUSED CABLE.

PHASE 3 AND FINAL SIGNAL PLAN

SS-17

	REVISIONS:	APPROVALS:  CHIEF SIGNAL DESIGN SECTION	MDOT - STATE HIGHWAY ADMINISTRATION  Office of Traffic & Safety  TRAFFIC ENGINEERING DESIGN DIVISION  LOG MILE #_ 18023514.45						
RUMMEL, KLEPPER & KAHL, LLP		ASST. DISTRICT ENGINEER TRAFFIC	DRAWN BY: DES.BY: CHK.BY:	DED/SM DK/DLA BJH			MACARTHUR B SIGNAL PLAN COUNTY: S	LVD.	
CONSULTING ENGINEERS	Nov.1, 1998	CHIEF TRAFFIC ENGINEERING DESIGN DIVISION					TS/STD. NO.:	SHEET NO.	
81 MOSHER STREET BALTIMORE, MARYLAND 21217 TELE:(410)728-2900 FAX:(410)728-3160	Reconstruct Due To New Geometrics. SHA No.: SM7685270	DIRECTOR OFFICE OF TRAFFIC & SAFETY	DATE: SCALE:	MAY 7, 1999 1"=20'	F.A.P. NO. S.H.A. NO.	SEE TITLE SHEET SEE TITLE SHEET	TS-232ØD-GI2	161 OF 241	